

In the claims:

Following is a complete set of claims as amended with this Response.

1. (Currently Amended) A method ~~performed by an Internet Service Provider ("ISP") to reduce certificate revocation lists ("CRL") at access points of a wireless access network providing access to the ISP, the method comprising:~~

receiving a subscription request at an Internet Service Provider (ISP) from a user terminal capable of accessing the ISP using a the wireless access network;

assigning a subscription identifier to the user terminal at the ISP in response to the subscription request;

receiving providing a service certificate signed by a certificate authority, the service certificate including the subscription identifier;

checking the service certificate against a certificate revocation list (CRL) maintained by the ISP; and

providing, to the user terminal, if the service certificate is valid, a session certificate ~~one or more session certificates~~ to be used to access the wireless access network, the session certificate ~~certificates~~ having a shorter validity period than the service certificate.

2. (Currently Amended) The method of claim 1, ~~further comprising: wherein~~ receiving the service certificate comprises receiving the service certificate from an access point being used by a user terminal to access the wireless access network;

~~determining whether the service certificate is valid; and~~

~~providing one or more new session certificates to the user terminal if the service certificate is valid.~~

Attorney Docket No. 15685P210D2

Application No. 10/689,501

3. (Currently Amended) The method of claim 2, wherein determining whether the service certificate is valid comprises searching a certificate revocation list at the ISP.
4. (Original) The method of claim 1, wherein the one or more session certificates are each associated with a link-level session available to the user terminal.
5. (Original) The method of claim 1, wherein each link-level session comprises a PPP session.
6. (Currently Amended) A method ~~performed by an access point of a wireless access network, the method~~ comprising:
  - receiving a digital certificate at a wireless access point of a wireless access network from a user terminal seeking access to the wireless access network, the digital certificate to be used to authenticate the user terminal;
  - determining a type of the digital certificate; and
  - if the certificate is a session certificate, then determining the validity of the digital certificate by searching a certificate revocation list (CRL) at the wireless access point that is associated with session certificates the type of the digital certificate ; and
  - if the certificate is a service certificate, then sending the certificate to an Internet Service Provider to determine the validity of the certificate.
7. (Currently Amended) The method of claim 6, wherein determining the type of the digital certificate comprises determining the length of the ~~whether~~ the digital certificate ~~comprises a service certificate or a session certificate.~~
8. (Currently Amended) The method of claim 6 ~~claim 7~~, wherein the validity periods of session certificates is shorter than the validity periods of session certificates.

9. (Original) The method of claim 8, wherein the CRL associated with session certificates is shorter than the CRL associated with service certificates.
10. (Currently Amended) A user terminal capable of communicating with a wireless access network, the user terminal comprising:
- a memory to store:
  - a service certificate issued by an Internet Service Provider ("ISP") and signed by a certificate authority, the service certificate having a first validity period, the service certificate corresponding with a subscription of the user terminal with the ISP and including a subscription identifier, the service certificate to be used by the wireless access network to authenticate the user terminal with the ISP; and
  - a session certificate issued by the ISP and signed by the certificate authority, the session certificate having a second validity period that is shorter in duration than the first validity period, the session certificate corresponding with a session subscribed to by the user terminal and to be used by the wireless access network to authenticate the user terminal to a wireless access point of the wireless access network.
11. (Original) The user terminal of claim 10, wherein the session comprises a link-level session.
12. (Original) The user terminal of claim 11, wherein the link-level session comprises a PPP session.
13. (Currently Amended) A machine-readable medium having stored thereon data representing instructions that, when executed by a processor of an Internet Service Provider ("ISP"), cause the processor to perform operations ~~to reduce certificate~~

revocation lists ("CRL") ~~at access points of a wireless access network providing access to the ISP,~~ the operations comprising:

receiving a subscription request at an Internet Service Provider (ISP) from a user terminal capable of accessing the ISP using a the wireless access network;

assigning a subscription identifier to the user terminal at the ISP in response to the subscription request;

receiving providing a service certificate signed by a certificate authority, the service certificate including the subscription identifier;

checking the service certificate against a certificate revocation list (CRL) maintained by the ISP; and

providing, to the user terminal, if the service certificate is valid, a session certificate ~~one or more session certificates~~ to be used to access the wireless access network, the session certificate ~~certificates~~ having a shorter validity period than the service certificate.

14. (Currently Amended) The machine-readable medium of claim 13, wherein the ~~instructions further cause the processor to perform operations comprising: receiving the service certificate~~ comprises receiving the service certificate from an access point being used by a user terminal to access the wireless access network;

~~determining whether the service certificate is valid; and~~

~~providing one or more new session certificates to the user terminal if the service certificate is valid.~~

15. (Original) The machine-readable medium of claim 14, wherein determining whether the service certificate is valid comprises searching a certificate revocation list.

16. (Original) The machine-readable medium of claim 13, wherein the one or more session certificates are each associated with a link-level session available to the user terminal.

17. (Original) The machine-readable medium of claim 13, wherein each link-level session comprises a PPP session.